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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/589,485	08/15/2006	Jordi Relats	27611U	8245

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THE NATH LAW GROUP
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EXAMINER	
AFTERGUT, JEFF H	
ART UNIT	PAPER NUMBER
1791	
MAIL DATE	DELIVERY MODE
06/24/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/589,485	RELATS ET AL.	
	Examiner	Art Unit	
	Jeff H. Aftergut	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uribarri in view of Ralats et al (US 2002/0162364).

Uribarri suggested that it was known at the time that the invention was made to manufacture a protective tube as an abrasion resistance sleeve for wiring which included obtaining a flat knit fabric and shaping these flat bands so that the longitudinal ends of the bands join together and overlap defining a tubular shape. The applicant is referred to Figure 5 for the processing defined therein as well as the description of the same. The reference did not expressly state that the fabric was knitted by warping via a Raschel flat type of loom. The reference suggested that one skilled in the art at the time the invention was made would have employed a mandrel to heat set the filaments of the knit so that the knitted bands were given a permanent shape (that of the mandrel) so as to be self curling tubular products. Those skilled in the art at the time the invention was made would have known that knitted products conventionally would have been formed by warping via a Raschel flat type of loom and such is taken as conventional in the art of knitting.

Relats suggested that those skilled in the art at the time the invention was made to employ a Rachel machine to knit a band useful as a tube for protection of a cable.

The applicant is more specifically referred to paragraphs [0010] and [0012] for example. Clearly, to employ a Rachel type machine to knit the bands in the reference to Uribarri would have been obvious to one of ordinary skill in the art at the time the invention was made as such knitting techniques and system were known to the ordinary artisan and were known to have been used to make protective tubes for cabling and/or wires as evidenced by Relats et al.

With respect to claim 2, to gradually shape a material in successive shaping steps would have been obvious to those skilled in the art. Successive shaping to form a longitudinally shaped tubular member is taken as conventional in the art. To use these common and conventional techniques to obtain a finished tubular sleeve would have been within the purview of the ordinary artisan. Regarding claim 3, while Uribarri did not expressly state what temperature the operation was performed at, one skilled in the art at the time the invention was made would have been determined through routine experimentation as a function of the plastic material employed in the knitting operation. Uribarri so much as expresses the same, see paragraph [0016] therein. regarding claim 4, note that one skilled in the art would have determined through routine experimentation not only the specific temperature but also the amount of time one would have exposed the material to said temperature in order to set the fabric in the desired configuration. Regarding claim 5, note that one skilled in the art would have determined the specific amount of overlap needed in the self curling arrangement and such would have included between 25 to 75 percent.

3. Claims 3/1, 3/2, and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 2 further taken with EP 947,621.

While the references as set forth above in paragraph 2 suggested that one skilled in the art would have determined the specific temperature and time exposure in the manufacture of the cable sheath, they fail to expressly state the quantified values of the claims. The reference to E.P. '621 suggested that those skilled in the art would have exposed the fabric to a temperature between 150 to 400 degrees C for a time from 30 seconds to 30 minutes (see claims 1, 3, and 4 of the disclosure. clearly, in the manufacture of a cable protective sheath one skilled in the art would have known to determine the appropriate temperature as well as time exposed to the same as evidenced by E.P. '621 and one skilled in the art would have been expected to expose the fabric material to these temperatures in the process as set forth above in paragraph 2.

4. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 2 further taken with Pithouse et al or Manent et al.

The references as set forth above in paragraph 2 suggested that those skilled in the art would have provided a knitted protective tube for a cable assembly, however there is no indication that those skilled in the art would have provided the protective tube with an impregnation of the knitted bands therein.

Pithouse et al suggested that those skilled in the art would have provided an impregnation or coating of a knitted reinforcement which assembly was heat recoverable whereby the impregnation of the fabric included impregnation with a resin. It should be noted that the resin impregnation of the knitted fabric in accordance with Pithouse would have afforded one with greater protection by providing an liquid barrier to the cables. Manent et al suggested that those skilled in the art at the time the invention was made would have provided a protective sleeving with a silicone coating thereon in order to provide the same with both thermal and electrical insulation. Such impregnation would have been desirable for a cable protective device. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a coating or impregnation of the fabric in order to provide the cable protection component with greater protection in order to provide the cable covering with water impermeability as suggested by Pithouse et al as well as provide enhanced electrical or thermal insulation as suggested by Manent et al in the process of making a protective cable as set forth above in paragraph 2.

5. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as set forth above in paragraph 2 further taken with either one of Krabec et al or Rockney et al.

The references as set forth above in paragraph 2 suggested that one skilled in the art would have knitted and prepared a preformed cover for the cabling to protect the same, but failed to make mention of the use of polyester and aluminum for the covering the cables. However, it was known as taught by either one of Rockney et al or Krabec to

provide a covering for a bundle of wires or cables with a material which included both polyester and aluminum. Clearly, inclusion of such a layer n the protective sheathing as set forth above in paragraph 2 would have enabled one to ensure that the cables were adequately protected. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a protective sheath for a cable which included a laminate of aluminum and polyester as suggested by either one of Rockney et al or Krabec et al in the process of making a protective cable tubing.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Aftergut whose telephone number is 571-272-1212. The examiner can normally be reached on Monday-Friday 7:30-4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeff H. Aftergut/
Primary Examiner
Art Unit 1791

JHA
June 22, 2009